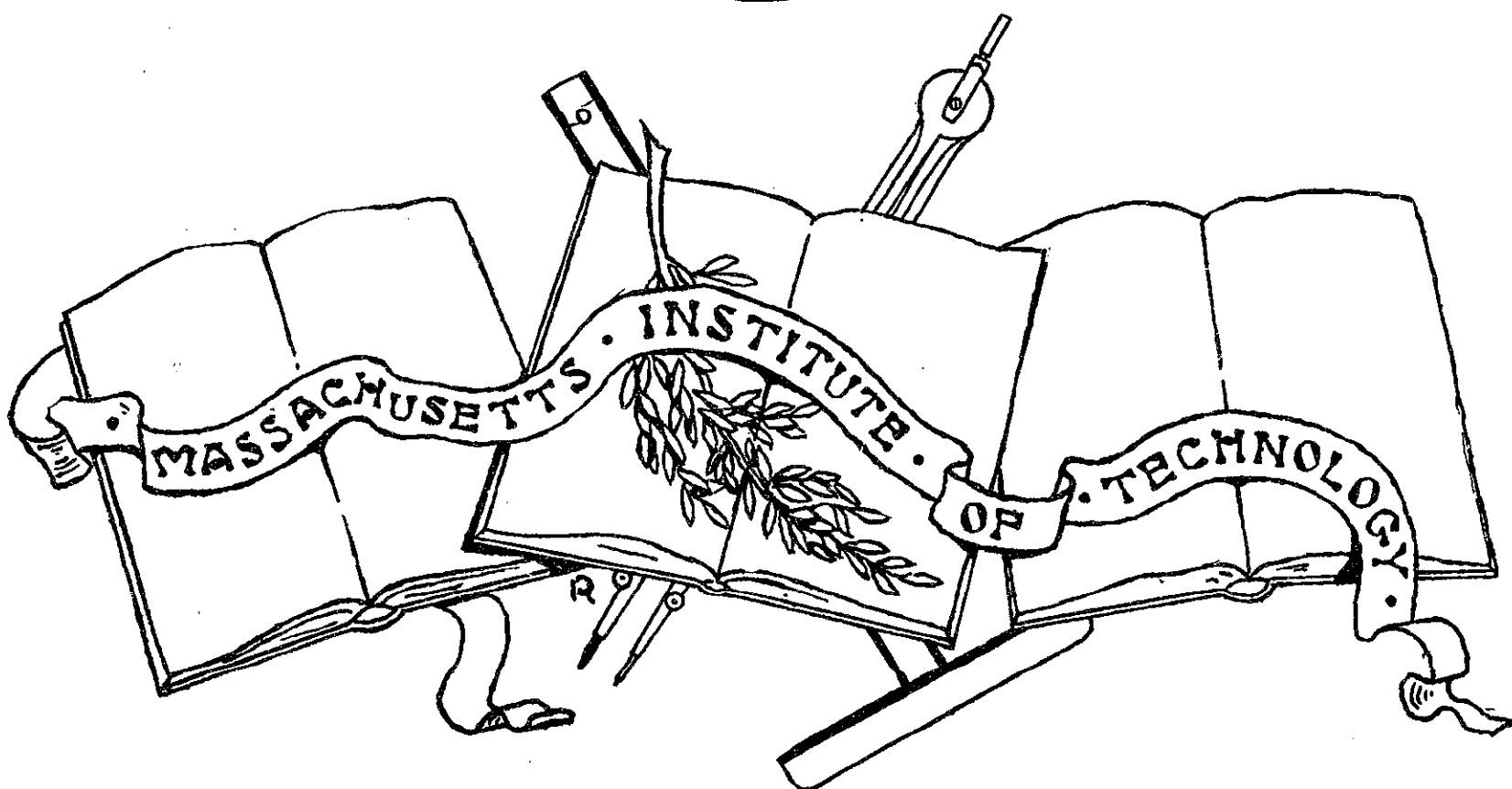
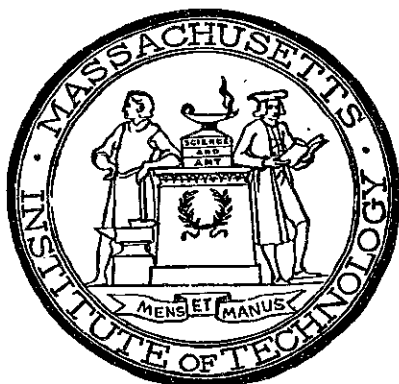




THE TECH



BOSTON, MASS.

VOLUME XVI.

NUMBER 30.

MAY 20, 1897.



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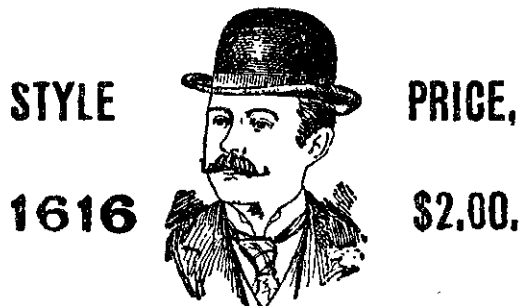
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THE TECH

VOL. XVI.

BOSTON, MAY 20, 1897.

NO. 30

THE TECH

Published every Thursday, during the college year, by students of the Massachusetts Institute of Technology.

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THOMAS EDDY TALLMADGE, '98, *Secretary*.
HARRY DRAPER HUNT, '97.
MORRIS KINNARD TRUMBULL, '97.
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WILLIAM EATON WEST, '99.
GERALD MARTIN RICHMOND, '99.
MORGAN BARNEY, 1900.

W. R. STRICKLAND, '98, *Business Manager*.
E. R. SHEAK, '99, *Ass't Business Manager*.

Subscription, \$2.50 per year, in advance. Single copies, 10 cts. each.

For the benefit of students THE TECH will be pleased to answer all questions and obtain all possible information pertaining to any department of the College.

Contributions are requested from all undergraduates, alumni, and officers of instruction. No anonymous manuscript can be accepted.

Frank Wood, Printer, 352 Washington Street, Boston.

Entered in Post Office, Boston, Mass., as Second Class Matter.

THE retiring editors of the *Cornell Widow* voice their sentiments in bidding farewell to their editorial labors as follows: "It's hard to give up your first flame. She may have often tried your temper, she may have taken much of your time, and she may have cost you a deal of money, yet somehow you hate to hand her over to the other fellow. If the other man must get her, however, you are glad to know that he is a good fellow." The '98 editors of THE TECH, in anticipation of handing the more active control of their work into the hands of '99, subscribe to the foregoing very heartily.

THE TECH has been enabled, by rigid economy, and by the more generous support received from undergraduates and alumni, to come out very much better financially this year than last; nevertheless it has been impossible more than to make both ends meet, and the heavy debt of the past remains undiminished. With a still more general support we shall

take up the struggle next year with renewed hope and with good chances of at least partial success.

AS the year has gone on, confidence in the strength and stability of the Institute has grown greater, while the sense of the loss suffered last January has grown no less. Indeed we realize more and more keenly, as time goes on, the deprivation of the strong hand and the courtly mind which ruled the Institute so long. At the same time we feel with a greater force the responsibility which falls upon each one to contribute his little mite toward upholding the prestige and glory of the school to which President Walker devoted the best years of his life, and the students await the choice of his successor with perfect confidence, and with the resolution to give him any aid and support that may be in their power.

ON Saturday the fateful struggle, toward which all the energies of our Athletes for eight months have been bent, will decide the rank of M. I. T. among the New-England colleges with regard to track athletics. The contest is to be a close one. Brown, Dartmouth, and Bowdoin all have crack teams, and less than thirty points will probably win the meet. Technology is sure of eighteen points as far as anything is sure in track athletics, and there are good chances for fifteen more. We therefore look forward to the result without over confidence, but with good and well-grounded hopes. Whether or not the red and gray are winning colors, we are absolutely confident that the men who go to Worcester this year will make a manful and creditable fight for them.

Typical Theses.

COURSE IX.

[A Comparison of the Double and Single Chambers in Municipal Governments of the United States, by W. Thornton Parker, Jr.]

ONE of the most important and interesting problems with which American Administrative Law is at present concerned is the question of the organization of the municipal legislatures. It is with one phase of this question, whether the legislative body shall be composed of one or two chambers, that the present thesis attempts to deal.

The original form of municipal government in the United States was taken directly from the English system of the seventeenth century, and so we find that our early charters, almost without exception, provide for a single chamber composed of aldermen, councilmen, and a recorder.

The separation of the aldermen and councilmen was the germ which naturally developed into a bicameral form of government. Two distinct classes of members could not long remain as one body, especially under the powerful influence of the two-chamber system of the Federal and State legislatures. So, by the middle of the present century, the bicameral type prevailed.

During the past decade, however, there has been a decided tendency to return to the single chamber. The two systems are now found scattered, without apparent rule, over the entire country, but in general, small cities, recently incorporated cities, and cities whose charters have been revised within the last ten years, have the single chamber. Among the large cities having the single chamber are Chicago, San Francisco, New Orleans, Detroit, Cleveland, Indianapolis, and all the cities of New York State except Buffalo.

The bicameral form is found in Philadelphia, St. Louis, Baltimore, Louisville, and generally in the cities of New England and Pennsylvania. Boston has the double cham-

ber, but the strong feeling against it will probably cause the abolition of the lower house within the next year.

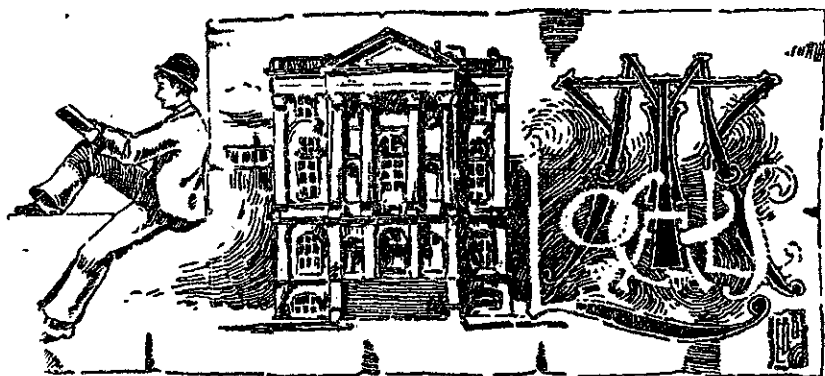
When two systems, so radically different, are found existing in close proximity in cities of every size and interest, the arguments in favor of each are naturally numerous and diversified. It is claimed for the single chamber that it fixes responsibility, is more consistent with modern municipal conditions, such as the substitution of professional heads of departments for the board system and the development of the corporate functions. Then the single chamber is held to be a partial cure for lobbying, gas rings, ward corruption, and extravagance, and so brings a better class of men into the city government.

The bicameralists, of course, take many of the same arguments and turn them around. They say that a double chamber prevents hasty legislation, undue extravagance, and rings. They also claim that it is the natural and consistent form of American government.

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A secondary object of this thesis has been a study of the details of organization of single chamber legislatures to discover, as far as possible, the best form under that system. In this connection the proportion of councilmen to the population of the city, their terms of office, and other facts, have been especially considered. Particular attention has been given to the new charters of Holyoke and North Adams, Mass., which represent the most recent theories of municipal government.

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A 24-inch Standard Measuring Machine, built by the Pratt & Whitney Co., of Hartford, Conn., has recently been placed in the machine shops. The machine is graduated to twenty thousandths of an inch, but by estimation, readings may be taken very accurately to one hundred thousandths of an inch. Precise uniformity of contact is obtained from the use of auxiliary jaws, holding a cylindrical gauge by the pressure of a helical spring. At a certain pressure the gauge will fall, thus establishing a clearly defined and reproducible pressure for all measurements. For sizes greater than one inch, there is a standard steel bar, graduated with great accuracy and provided with a microscope and 16-candle power light. The whole is covered with a dust-proof glass case, conveniently raised and lowered by counterweights. The great value of the measuring machine is that it permits of an exact duplication of parts of all kinds of tools and machines, so that worn or broken parts may be replaced by interchangeable ones. The machine will be used in all cases where nice measurement is required, as in the grinding of arbors, etc., of standard sizes. Certain it is this new machine is a marked advance in accurate measuring over the ordinary hairbreadth of the blacksmiths of so many years standing, the hairbreadth being equal to one quarter of an inch.

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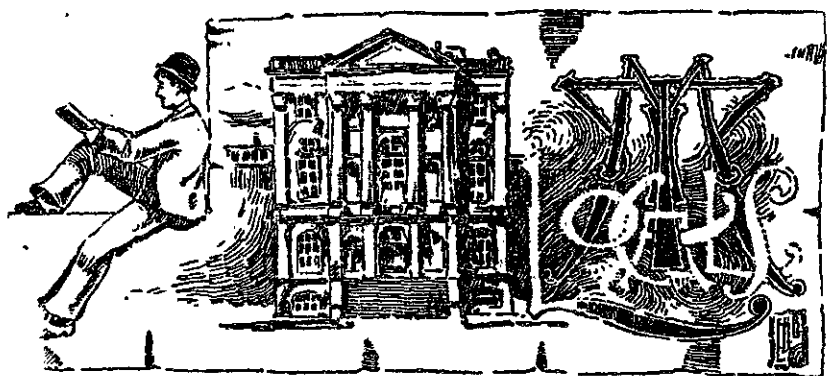
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Book Review.

Cap and Gown, Second Series: a selection of college verse of the past five years, chosen and arranged by Frederick Lawrence Knowles. L. C. Page & Co., Boston. One Vol., 16mo, cloth, \$1.25.

This little book is indeed a most attractive volume in many ways. It is bound in an artistic cover with panel die, with a charming little etching as the frontispiece, and the printer's and publisher's work is done with evident care and a genuine taste for the fitness of things. But more than this, the selections, after a hasty reading, appear to us most happy. The cheerfulness, happiness, hopefulness of undergraduate life seem to permeate the entire volume, and give it that spirit of careless mirth found only on the campus or in the hall. "Cap and Gown" should be the friend of every college man. Graduates will find it a most pleasant reminder of the scenes and sentiments of student days.

The publishers announce that special editions have been published in many of the college colors, and that a Technology Edition will be forthcoming if "there is sufficient demand."

Harvard-Tech. Dual Games.

THE dual track and field meeting between the Harvard 2d Team and the Tech. Track Team resulted in Harvard's winning by a score of 66½ to Technology's 50½ points.

The first event was the 120-yard hurdles. The first and second heats were won by Williams of Harvard and Wentworth of Tech. Ben Hurd failed of a place by an unfortunate slip. The final was won by Williams, of Harvard, in 16½ seconds.

The two mile was a new distance for Harvard, but Foote took the lead and maintained it until the finish. His time was very fast, 10 minutes 11½ seconds. Mayhew got second in 10 minutes 26 seconds, which beats the Tech. record by 50 seconds.

Jones won the shot with a put of 37 feet ½ inch, Schmidt taking second with 36 feet 9½ inches. Jones also took second in the hammer, breaking the Tech. record, with a throw of 107 feet 10½ inches. The high jump was hotly contested, Butcher of Tech. tying Loines of Harvard at 5 feet 6⅞ inches. In the jump-off Loines won at 5 feet 7⅞ inches.

Nolte outdid himself in the pole vault by doing 10 feet 2 inches.

Although Tech. lost the meet, the showing made was by no means discouraging as the records made were excellent in almost every case. Following is the summary: first counts 5, second 3, and third 1.

120-yard hurdles.—Won by H. L. Williams, Harvard; J. F. Wentworth, Technology, second; G. A. Cole, Harvard, third. Time, 16½ sec.

100-yard dash.—Won by A. W. Grosvenor, Technology; second, J. D. G. Oglesby, Harvard; third, H. S. Antisdell, Harvard. Time, 10½ sec.

One-mile run.—Won by W. B. Truesdell, Harvard; second, H. L. Bodwell, Technology; third, S. A. Hooker, Technology. Time, 4 min. 42½ sec.

440-yard dash.—Won by E. D. Fullerton, Harvard; second, C. B. Stebbins, Technology; third, M. L. Butler, Harvard. Time, 52 sec.

Two-mile run.—Won by H. W. Foote, Harvard; time, 10 min. 11½ sec.; second, H. B. Mayhew, Technology; time, 10 min. 26 sec.; third, J. Noble, Jr., Harvard.

220-yard hurdles.—Won by C. B. Stebbins, Technology; second, H. L. Williams, Harvard; third, B. Hurd, Technology. Time, 26½ sec.

220-yard dash.—Won by H. S. Antisdell, Harvard; second, A. W. Grosvenor, Technology; third, E. J. Green, Harvard. Time, 22½ sec.

880-yard run.—Won by A. B. Ruhl, Harvard; second, F. R. Plumb, Jr., Harvard; third, F. H. Lathrop, Technology. Time, 2 min. 2½ sec.

FIELD EVENTS.

Putting 16-pound shot.—Won by H. W. Jones, Technology, put 37 ft. ½ in.; second, T. Schmidt, Technology, put 36 ft. 9½ in.; third, S. F. Mills, Harvard, put 35 ft. 10 in.

Throwing 16-pound hammer.—Won by W. D. Hennen, Harvard, distance 118 ft. 6½ in.; second, H. W. Jones, Technology, distance 107 ft. 10½ in.; third, W. A. Boal, Harvard, distance 107 ft. 1 in.

Running high jump.—R. H. Loines, Harvard, and W. L. Butcher, Technology, tied for first place. On jump-off Loines won, height 5 ft. 7⅞ in.; Butcher, second, 5 ft. 6⅞ in. J. D. Dole, Harvard; R. A. Ferguson, Technology, and A. G. Mason, Harvard, tied for third place. Point split up, Harvard getting ⅔, Technology ⅓.

Running broad jump.—Won by A. W. Grosvenor, Technology, distance 21 ft. 6¾ in.; second, G. M. Leupp, Harvard; third, J. T. Harrington, Harvard.

Pole vault.—Won by E. D. Brooks, Harvard, height 10 ft. 4 in.; second, J. Nolte, Technology, 10 ft. 2 in.; third, R. A. Garrison, Harvard, 9 ft. 9 in.

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 Welt Seam 38 inches long.
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Nineteen Hundred defeated St. Mark's school Saturday in a game whose only feature was the heavy batting of '00. Whitehouse and Cotting pitched for '00. Score, 12 to 11.

The Individual Championship cup for the year was won by A. W. Grosvenor, '98, with 28 points; W. E. Putnam, '98, was second, with 26 points; and H. W. Jones, '98, third, with 20 points. In the competition for the bicycle offered by Colonel Pope, H. W. Jones leads with 38 points; C. B. Stebbins stands second with 37 points; and W. E. Putnam is third with 29 points.

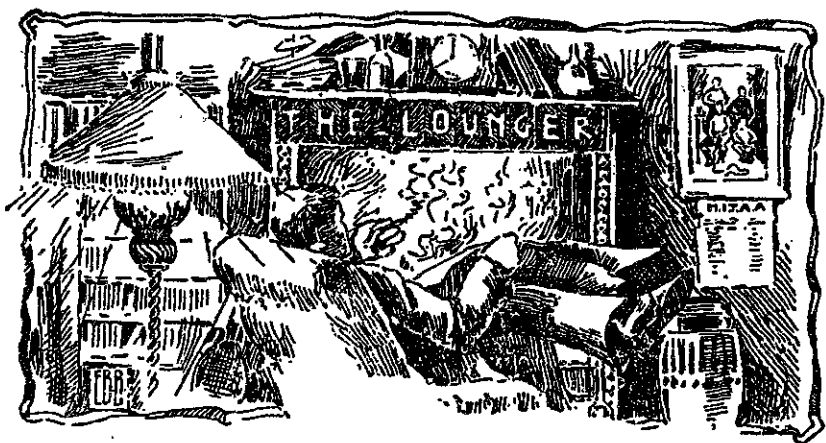
Ninety-nine was defeated by Cambridge High and Latin in a twelve inning game on May 11th, by a score of 7 to 5. Ninety-nine put up a much better game than they did during the preceding week against Boston College and Arlington High. Sherrill as pitcher and Holabird as catcher both did good work.

The game between Tech. 1900, and Harvard 1900, on May 10th, resulted most unsatisfactorily for Tech. For two innings neither side scored, but in the third and last inning Tech. succeeded in getting three men on bases when Stuart came up with a two-base hit that scored three runs. Rain then interrupted the game. When the shower was over, Tech. wished to continue, but Harvard declared that, since play had been delayed more than the regulation half hour, a new game would have to be commenced. Tech., however, was unwilling to give up her hard-earned lead of three runs and commence again. Cotting pitched a superb game for Tech. and received excellent support from the rest of the team.



'78. The work of J. W. Rollins, Jr., in this State is at present attracting the attention and admiration of civil engineers and railroad men all over the country. Three years ago he commenced the elevation of tracks on the Providence Division of the N. Y., N. H. & H. R. R. He soon left this in other hands to attend to that of the abolition of grade crossings at Brockton. At the latter place the road has spent something over two million dollars, resulting in perhaps the finest series of granite arches for the purpose required to be found in the country. Every member or alumnus of M. I. T. must be proud of this work. Early this month, members of the N. E. Association of R. R. Supts., were shown the entire premises, to their great admiration. Mr. Rollins later gave an illustrated talk at the U. S. Hotel, Boston, entering into full details of construction, etc. The twin stations, connected by subway, show an elaborateness of decoration and ornamentation rarely, if ever, seen in similar cases, and a trip to Brockton by any member of Courses I. or IV. would be amply repaid. Mr. Rollins has now returned to his earlier and unfinished assignment on the Providence Division, between Boston and Forest Hills.

'88. At the last meeting of the Northwestern Association at Chicago, Mr. B. R. F. Collins, '88, as the newly elected president of the Association, tendered a complimentary entertainment, which was thoroughly enjoyed by the upwards of fifty members present. At a recent meeting of the Chicago Edison Club, Mr. Collins presented a paper on "Central Station Economics," based on his four years experience as Engineer of Tests for the Edison Company.



ONCE more the Lounger's case comes up for consideration before the conclave of the powers. Steeled, however, by past experience, he fears not, but awaits the result with equanimity, calmly confident that in the face of his record the Faculty cannot possibly cast him out into the cold, cold world by the summary bestowal of an S. B. It would seem scarcely consistent, after the Lounger's inspiring tirades anent Tech. spirit if he were to allow himself to be graduated without a struggle. He can assure his admirers that there is but little danger of this column being discontinued next year. Scarcely anything, in fact, could now tempt the Lounger to desert his accustomed corner; the old yearning for the integument of the sheep has vanished with increasing wisdom. If five-dollar-a-week positions were offered galore, if the Faculty stood ready to bestow as many degrees as the graduate made of glass possesses, yet would the Lounger shake his head warily and puff contemptuous smoke rings from his pet briar, for he thinks he knows a good thing, and he prizes his position of mentor-in-chief much too highly to surrender it.

As the Lounger recently wandered aimlessly on a tour of exploration through the wilder parts of Newton Centre, he came suddenly round a corner upon a Technology Senior manipulating a level. The Lounger, being in no great haste, remained to watch the antics of the youthful engineer, as also did two small children, apparently twins, who had been playing near, and who were marked by a peculiar narrow red ribbon about the neck of each. "Rod up! Halloa, there, rod up, I say," shouted the son of '97, in no gentle tone, to the rodman located some two hundred yards down the street. It occurred to the Lounger that the latter might also be an Institute man, and he made a remark to that effect. The twins appeared interested. He to whom the question was addressed

made no reply, however, but only remarked, "Down a hair! down a hair!" with increased vigor. "Who is the guy at the rod, old man?" repeated the Lounger. "Thath Papa," lisped two little voices. "Hullo, my dears, that's Papa, is it?" "Yeth, thir, he ith." "Is Papa good to his little ones?" "Yeth, thir, he ith." This colloquy interested the Lounger still more deeply in the personality of the distant rodman. As he looked about he saw that the elevations were being taken supplementary to the construction of a new house, a short distance from the place where he stood. He then sidled carelessly behind his friend at the instrument in order to make out the names on the notebook he held. When he at last caught sight of the inscription, the significance of the whole affair burst upon him at once. The names were S—, level; H. W. T-l-r, Ph.D., rod.

Later, the Lounger chuckled to himself as he thought of the red ribbons at the children's throats. "Yes, it must be," he mused. "No other construction can be put upon it; the ribbons were—yes, I'm sure of it now—they were *red tape*."

Needless to say, the Lounger, being of a sanguine and optimistic turn of mind, hoped for fair weather last Friday afternoon, and went bravely out to the Willows to root for the pets of the M. I. T. A. A. Our representatives acquitted themselves nobly; if they could not defeat the second-best Crimson athletes they could, at least, break Institute records by the score. The attendant muckers, indeed, quite caught the spirit of the occasion when they shouted gleefully, "The bar is now at four feet two; another Tech. record broken!" It gladdened the Lounger's heart also to see that the Athletic Association is once more prosperous and affluent. To this fact the resplendent knickerbocker costume and closely cropped curls of the Treasurer bore ample testimony.

Hobson's Choice.

Prof. Sedgwick says that milk is packed
With typhoid germs and such;
And water, Mrs. Richards thinks, is worse:
There's alkaloid in coffee cracked;
And tea will hurt you much;
And high-proof spirits are, they say, a curse.
It seems, perhaps, a pity,
And yet we must, I fear,
Just quote the ancient ditty,
"Nothing to drink but beer!"

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Castle Square Theatre.—The Castle Square Comedy Company are meeting with continued successes; the company is excellent and plays popular. In response to many requests a

grand production of "Rosedale" is announced for May 24.

Boston Museum.—Saharet, the remarkable acrobatic dancer, is creating something of a sensation at her appearance in "The Good Mr. Best." She is the most wonderful dancer of the contortionist type ever seen. If she has any bones at all they must be of the whale-bone variety, as they appear to curl up and straighten out at her will.

Hollis Street Theatre.—The closing season at "The Hollis" is being celebrated in a charming way by Mr. and Mrs. Kellar, who are exciting the wonder and admiration of the crowds who flock to see them.

"The Walking Delegate."—This new comic opera promises to be something out of the ordinary, and will be produced at the Tremont Theatre, May 31st. The book is by Charles Emerson Cook, who has evolved an unique plot from peculiar customs of Corea, where the scene is laid. The music is by Lucius Hosmer, a pupil of Mr. Chadwick. Mr. Hosmer's music fits the book perfectly, and prominent musicians predict a popular novelty. The cast is particularly strong, numbering among its members Laura Joyce, Oscar Girard, and Walter Hawkins, the latter of Cadet fame.

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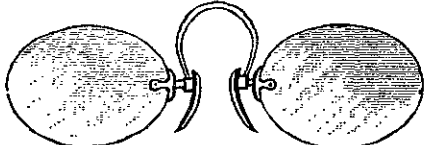
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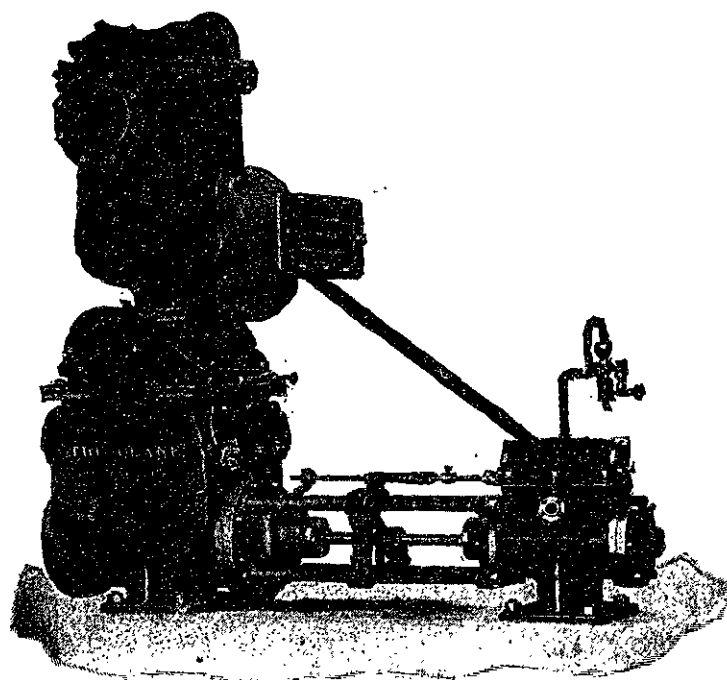
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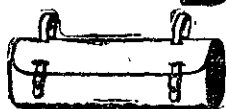
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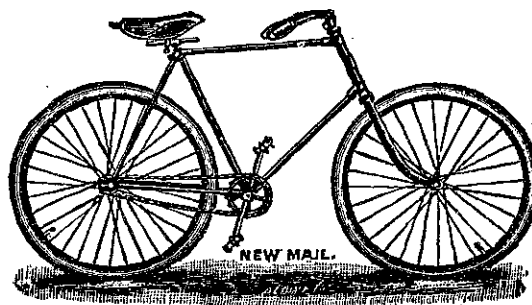
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